DOCUMENT RESUME

ED 190 705 UD 020 792

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TITLE Project ABLE--Achieving Through Bilingual Education. Final Report.
INSTITUTION Community School District 21, Brooklyn, N.Y.
PUB DATE Aug 79
GRANT G007604884
NOTE 19p.: Not available in paper copy due to reproducibility factors.

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Academic Achievement: *Bilingual Education: Elementary Education: English (Second Language): Hebrew: Italian: *Program Effectiveness: Program Evaluation: Russian: Spanish
IDENTIFIERS *Bilingual Education Act 1968: *New York (Brooklyn)

ABSTRACT

Project ABLE (Achieving Through Bilingual Education) operated in six public and nonpublic schools in Brooklyn, New York, during the 1978-1979 school year. Approximately 250 students from four language groups (Hebrew, Italian, Russian, and Spanish) received ABLE services. The program focused on the maintenance of bilingual resource centers and on working with tax levy bilingual teachers to enhance the quality of their instructional efforts. Special emphases were given to instruction, curriculum and materials, parental involvement, staff development, and impact on student achievement. Program evaluation was accomplished through classroom observation: teacher, administrator, and project director interviews: and pre/posttest student achievement data from the Bilingual Syntax Measure, the New York City Language Assessment Battery, and the Stanford Achievement Test. Findings indicated that: the project was strong in the areas of curriculum and materials, parental involvement, and staff development: instruction took a variety of forms in both the foreign languages and English: and a significant impact was made on student achievement in a number of areas. (Author/MK)

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ED190705

Function Number 5073-97601

Grant Award Number G007604884

PROJECT ABLE

ACHIEVING THROUGH BILINGUAL EDUCATION

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Final Report: An evaluation of a New York City, Community School District 21, bilingual education project, funded under Title VII of the Elementary and Secondary Education Act of 1965.

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August 1979

VDO 20792

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Project ABLE
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Overview

During 1978-79, Project ABLE (Achieving Through Bilingual Education) was in operation at the following elementary and nonpublic schools of District 21: P97, P225, P288, Ahi Ezer, Mogan David Yeshiva and Yeshiva of Flatbush. It was staffed by three resource teachers - one in Italian, one in Russian and one in Spanish - and six paraprofessionals, one at each of the schools serviced by the project. ABLE was designed to reach approximately 130 students in the public schools and an additional 70 students in the nonpublic schools.

Four language groups received services through ABLE: Hebrew, Italian, Russian and Spanish. It reached students at every grade level between kindergarten and 6th grade. A key part of ABLE's work was the maintenance of bilingual resource centers at P97 in Italian, P225 in Russian and P288 in Spanish. Another important aspect of ABLE was that the resource teachers worked with tax levy bilingual teachers in order to enhance the quality of their instructional efforts.

The project was coordinated by a director whose position was funded through it. The director's role was to coordinate and supervise the project, to plan and confer with staff on a regular basis, to conduct on-site visits, to supervise the in-service workshops for staff and parents, to train resource teachers and to assume responsibility for ABLE's activities.

In a continuation of efforts from prior years, ABLE had special emphases in the areas of instruction, curriculum and materials, parental involvement, staff development and impact on students. Each of these project emphases will be discussed in the findings section of our

report.

Evaluation Activities

In our evaluation of ABLE, the following activities were undertaken:

(1) Each public school was visited twice during the school year. Classes were observed. Teachers and school administrators were interviewed.

(2) Depending on grade level and language ability, students were pretested at the beginning of the school year and posttested at the end of the year by the Bilingual Syntax Measure in English and/or Spanish, the New York City Language Assessment Battery and the Stanford Achievment Test. The test scores were analyzed by grade level in order to assess project impact on student growth.

(3) The project director was interviewed.

Findings

(1) Instruction

Generally, there was a good variety of instructional activities in the classes that were observed. In terms of content we saw lessons in geography, reading, phonics, mathematics and even a discussion of current events. Classes were orga nized in several ways; some with children reading and reciting from their books while others utilized the blackboard or teacher made materials. Regardless of the organization, paraprofessionals fulfilled a most useful function in working with particular students thereby enabling instruction to be more individualized.

There are some differences in the manner in which the bilingual approach was implemented. In some cases the instruction was in English with the foreign language being used as reinforcement. A second pattern was for concepts to be introduced in English and then immediately repeated

in the foreign language. Finally, some content instruction was in the foreign language. In all cases, periods of the day were set aside for English as a Second Language instruction. Generally, it would appear that the spirit of the project was to teach the students so that they would both be able to function in an English speaking environment and understand and appreciate their native language and culture.

(2) Curriculum and Materials

Continually a problem in bilingual programs, curriculum and materials is an area where Project ABLE made some progress but more remains to be done. The cultural resource centers, established in prior years, now contain a good amount of materials and learning devices which were well utilized by students. In addition, the project director has regularly met with resource and classroom teachers in order to share materials and develop new curricula. There has also been some sharing of materials with the nonpublic schools.

Productive as the efforts in the area of curriculum and materials have been, if bilingual education is to function at tis present multiplicity of grade levels and subject areas, there is still a need for comprehensive sets of textbooks and workbooks. Although sometimes difficult to secure, they are usually available. A few of the needed materials that were brought to our attention during our observations were workbooks in English grammer, Spanish and Italian science textbooks and Spanish social studies texts.

(3) Parental Involvement

Communication with parents and the community at all project sites was quite good. An active Parental Advisory Committee met monthly at the project sites or the district office and more often on an as needed basis. At these meetings, key parental concerns were discussed. Moreover, parents were active in the planning of cultural activities where they met bilingual teachers and educational assistants. They also accompanied children on class trips. Finally, a bimonthly newsletter, written by pupil participants and bilingual personnel at each participating school proved most effective in maintaining parental awareness and cooperation.

Although lack of funds prevented it this year, a bilingual family assistant at each of the public schools would be most appropriate. Such a person could more readily bridge the gap between the community and the school This is especially important since many of the parents of participating students are recent immigrants to the U.S. who have a variety of problems, some of which are related to their children's schooling.

(4) Staff Development

Central to Project ABLE, staff development had several different aspects. To begin with, the ABLE director made regular monthly on-site visits during which staff training was conducted. In addition, monthly staff newsletters showed themselves to be most effective in keeping open communication with the bilingual staff.

More formal staff training took place in a series of workshops held regularly during the school year. With an average attendance of nine

teachers, the in-service workshops covered the following topics:

.....Hand-on Workshop: Display and Demonstration of Childcraft materials.

.....Reading and the Bilingual Child

.....Reading and the Italian Bilingual Child

.....Reading and the Spanish Bilingual Child

.....Reading and the Rusiian Bilingual Child

Finally, related to their involvement in Project ABLE, these teachers were enrolled in the following university courses:

.....Governance and Policy Making in Education (New York University)

.....Linguistics and the Teaching of Reading (Long Island University)

.....Supervision in a School Setting (Long Island University)

From the variety of activities, it can be seen that the staff development aspect of ABLE was well handled. In our opinion these efforts were fruitfuly and deserve to be continued.

(5) Impact on Students

The final area of this evaluation of Project ABLE is the most complex. In order to assess the project's impact upon participating students, they wre tested by one or more of the following tests: Bilingual Syntax Measure (BSM), New York City Language Assessment Battery (LAB) and Stanford Achievement Test (SAT). Because of the nature fo the student population, the type of test varies somewhat with the different project components. In analyzing the data, we have broken it down into public and nonpublic schools, by language group and by grade levels. While this is a valid approach given the structure of the project, it leads to a situation in which there are relatively few students

at many of the grade levels.

The different tests utilized also called for different analytical approaches. The BLS and LAB tests, average (mean) pre and posttest scores were computed for the students at each grade level. Subtracting and pre from the posttest mean showed the increase. Finally, the statistic "T" for correlated samples was computed in order to evaluate the significance of the mean increase. The larger the T value, the less likely it is that the gain could have occured as a result of sampling error, i.e., the more likely it is to be a result of program impact.

For the SAT scores, the method of analysis was as follows: Pre and posttest mean scores were calculated for students on each grade level serviced by the project. For grades 2 through 6, the pretest mean was used as the basis to compute a predicted posttest mean, i.e., the mean score one would expect if the students had continued to grow at their rate of growth prior to participation in Project ABLE. Predicted posttest mean gains (predicted posttest mean minus pretest mean) were then compared to the actual mean gains (posttest minus pretest mean) by means of a ratio. The ratio of actual to predicted mean gain thus became the indicator of project success; the higher the ratio, the more "successful" the project. For grade 1, where it is not possible to compute predicted gains, raw scores and corresponding percentile ranks were examined to test for pre and posttest differences.

Having outlined the general methodology, it is now appropriate to examine the test results for each of the project components. The calculations described above are shown in Table One for the Italian Bilingual Component. This table contains data from each of the three tests administered to

participants. The BSM is shown for grade 1 through 3 in the upper part of the table. As is evident, there were mean increases at each grade level. However, grades 2 and 3, the two grades with sufficient numbers to justify the computations, show insignificant T-values. In other words, the increases could well have occurred by sampling error, i.e., by chance. A good part of the reason for this may lie in the fact that there are only five levels on the BSM and many of the students started high on the pretest and then "topped out" on the post-test. Indeed, it sould be noted that the pretest means of 4.5 and 4.2 on a scale of 5 did not leave much room for improvement.

Table One: Italian Bilingual Component: Pre and Posttest Means and Other Statistics for Bilingual Syntax Measure (BSM) and Stanford Achievement Test (SAT) (The number of students above the 21st Percentile on the Language Assessment Battery (LAB) Posttest is also shown).

BSM	N	Pretest Mean	Posttest Mean	Mean Increase	T-Value	Over 21st Percentile - LAB Post Test
One	6	2.3	4.0	+1.7	a	3
Two	11	4.5	4.9	+0.4	1.30 N.S.	10
Three	17	4.2	4.8	+0.6	3.92 N.S.	17
(Four	9	a	a	a	a	8
LAB (						
ONLY (Five	7	a	a	a	a	5
(						
(Six	13	a	a	a	a	9
	63					52

b SAT	N	Pretest Mean	Posttest Mean	Predicted Mean Gain	Actual Mean Gain	Ratio: Actual to Predicted Mean Gain
One	5	K1	K1	a	a	a
Two	11	1.4	3.1	+0.4	+1.7	4.25
Three	17	2.5	3.6	+0.7	+1.1	1.57
Four	9	2.7	3.0	a	+0.3	a
Five	7	3.7	5.4	a	+1.7	a
Six	12	4.6	5.4	+0.6	+0.8	1.33
	61					

a. Data inappropriate as insufficient to calculate statistic
b. SAT scores are grade level equivalents
N.S. Not significant

Also shown on the upper part of Table One are the percentages of students scoring over the 21st percentile on the LAB test. Although the test was administered at all grade levels (grades 1,2 and 3 took both the BSM and LAB), only the LAB posttest was given. Hence, there was no point to computing mean scores. However, the 21st percentile is critical since it connotes basic competency in English and it is a most positive project outcome that 52 of 63 students, more than 80% serviced in this project component scored above this key percentile.

There were also some moderately positive mean gains in the SAT scores on each of the six grade levels serviced by the Italian Component of ABLE. Shown in the bottom part of Table One, it can be seen that actual exceed predicted mean gains for grades 2,3 and 6, the ones with sufficient numbers to compute predicted means. Although the ratio of 4.25 at grade 2 is very high, the ratios of 1.57 and 1.33 suggest that tese project parcicipants learned at a rate only slightly above that at which they wouldhave learned in the absence of the special project. For the other grade levels, the number of less than 10 participants precludes calculation of meaningful statistics.

In the Russian Bilingual Component of ABLE there are too few students at any grade level to offer meaningful generalizations about project impact. However, a calculation of pre and posttest means shows mean increases at the kindergartenand 1st grade level for the BSM and the 5th and 6th grade for the SAT. For grades 3 and 4, there are too few students even to calculate means. The pretest mean of 0 for grades 1,5 and 6 indicate that the children in these grades were completely nonliterate in English at the beginning of the school year. The fact that the 1st graders reached an average level of 3.1 on the BSM

while the 5th and 6th graders reached average grade level equivalents of 2.6 and 2.5 respectively on the SAT suggests that this project component was effective in developing the English language competency of its student participants. (See Table Two).

Table Two: Russian Bilingual Component: Pre and Posttest Means, Mean Increases and T-Values for Bilingual Syntax Measure (BSM) and Stanford Achievement Test (SAT).

BSM	N	Pretest Mean	Posttest Mean	Mean Increase	T-Value
Grade					
KG	6	0.8	3.3	+2.5	a
One	7	0	3.1	+3.1	a
Three	2	a	a	a	a
SAT[b]					
Three	2	a	a	a	a
Four	1	a	a	a	a
Five	6	0	2.6	+2.6	a
Six	6	0	2.5	+2.5	a

a Data inappropriate as insufficient to calculate statistic

b SAT scores are grade level equivalents

Largest of the public school programs, the Spanish Bilingual Component students were also tested by the BSM and SAT. Since there is a Spanish version of the BSM, students in grades 1,2 and 3 were tested both in English and Spanish. Since SAT testing was utilized for grades 2 through 5, grades 2 and 3 were tested both by BSM and SAT.

Although the BSM testing does show gains at each grade level, there is only one group for whom the gains are statistically significanct, viz., 2nd grade English. With less than 10, the numbers are too few to calculate a T-value in the 1st grade. The 2nd and 3rd grade Spanish BSM mean scores were influenced by the "topping out" phenomenon observed earlier in the Italian Bilingual Component scores. However, the gains in BSM English scores in the 3rd grade are weak in that they are not significant statistically. This means they could have been the result of sampling error or chance. (See Table Three).

Table Three: Spanish Bilingual Component: Pre and Posttest Means and Other Statistics for Bilingual Syntax Measure (BSM) and Stanford Achievement Test (SAT)

BSM	N	Pretest Mean	Posttest Mean	Increase	T-Value
One(English)	5	3.4	4.0	+0.6	a
(Spanish)	5	4.8	4.8	0	a
Two(English)	19	2.5	3.6	+1.1	4.59*
(Spanish)	19	4.1	4.4	+0.3	1.76 N.
Three(English)	14	2.4	3.1	+0.7	3.68 N.
(Spanish)	14	4.0	4.3	+0.3	2.28 N.
	38				

SAT[b]	N	Pretest Mean	Posttest Mean	Predicted Mean Gain	Actual Mean Gain	Rat Acti Pred Mean
Two	19	1.2	1.7	+0.2	+0.5	2.
Three	13	1.6	2.0	+0.3	+0.4	1.3
Four	13	2.3	3.0	0.4	+0.7	1.7
Five	9	3.8	5.4	a	+1.6	a
	54					

a Data inappropriate as insufficient to calculate statistic
b SAT scores are grade level equivalents
* Significant at .05
N.S. Not significant

Using the mode of analysis for SAT scores described on page 6, the lower part of Table Three shows actual exceeding predicted mean gains for grades 2,3, and 4. Grade 5 also shows a considerable actual mean gain but there are too few students to compute a meaningful predicted mean gain score. Grade 2 shows an excellent ratio of 2.50 while grades 3 and 4 show more moderate ratios of 1.33 and 1.75.

Finally, the results for the Nonpublic School Component, which included both Hebrew and Russian speaking children, are shown in Table Four. For this component the testing was more comprehensive in that all of the children were both pre and posttested on the LAB as well as the BSM and SAT. Thus, some of the children in grades 1,2 and 3 were tested on all three tests. However, we are again faced with a situation where too few students, less than 10, at various grade levels preclude extensive generalizations.

Table Four: Non Public School Component: Pre and Posttest Means and Other statistics for Bilingual Syntax Measure (BSM), New York City Language Assessment Battery (LAB) and Stanford Achievement Test (SAT)

BSM	N	Pretest Mean	Posttest Mean	Mean Increase	T-Value
One	7	3.0	4.3	+1.3	a
Two	9	3.7	4.4	+0.7	a
Three	6	4.5	5.0	+0.5	a
	22				

Table Four (continued)

LAB	N	Pretest R.S.	Pretest Corr.%ile	Posttest R.S.	Posttest Corr.%ile	Mean Increase R.S.	Mean Increase Corr.%ile	
Kg	14	14.1	2%	19.0	7%	+4.9	+5%	7.58**
One	26	16.0	1%	25.4	8%	+9.4	+7%	11.45**
Two	5	37.6	57%	39.8	99%	+2.2	+42%	a
Three	4	65.3	43%	70.3	41%	+5.0	-2%	a
Four	6	67.5	27%	77.3	42%	+9.8	+15%	a
Five	4	73.5	19%	78.5	29%	+5.0	+10%	a
Six	2	a		a		a		a
	61							

SAT[b]	N	Prestest Mean	Posttest Mean	Actual Mean Gain	Ratio: Actual to Predicted Mea
One (SesatII)	7	K1	K8	a	a
Two	9	1.8	2.6	+0.8	a
Three	6	2.3	3.6	+1.3	a
Four	8	2.6	3.4	+0.8	a
Five	7	3.6	4.8	+1.2	a
Six	4	4.4	5.6	+1.2	a
	41				

a Data inappropriate as insufficient to calculate statistic
b SAT scores are grade level equivalents

Nevertheless, an examination of Table Four does show a pattern of gains for the student participants of the Nonpublic School Component. First of all, there are mean increases for each grade tested by the BSM. There is a similar pattern of increases for each of the grades tested by the LAB. Here, in addition to the raw score means, the table also shows the corresponding percentile following the standardized schedule, normed to grade and time of year, disseminated by the New York City Board of Education, Office of Educational Evaluation. It is noteworthy that there are corresponding percentile increases for five of the six grade levels for which scores could be calculated. It should also be observed that the corresponding percentiles for the posttest for grades 2 through 5 are considerably above the 21st percentile, the one considered indicative of basic English competence. Finally, for the two grades for which statistical significance could be calculated, kindergarten and grade 1, the gains are significant at the .01 level. In other words, they are genuine and attributable to project effects rather than sampling error.

The SAT scores for the Nonpublic School Component, shown in the bottom part of Table Four, also evidence mean gains at every grade level. Although the gains are more than one year for students in grades 3,5 and 6, there are too few students tested to apply any more rigorous analysis.

In concluding this discussion of impact on students, it is appropriate to offer a suggestion concerning the method of testing. As noted above, the problem with the BSM is that students frequently "top out" or go over the top range of the test. In evaluating the program, when

mean pretest scores are high, little room is left for improvement. The reason is that the test is too easy. While it may be useful for diagnostic purposes for children who are entering bilingual programs, especially those from a very limited English speaking background, its use for project evaluation is minimal.

In light of the problems of the BSM, it is recommended that the LAB test be used for purposes of bilingual project evaluations. Although the LAB test also has its problems, its range is scores is far greater than that of the BSM. Furthermore, as mentioned above, there are corresponding percentile ranks which effectively norm this test to grade level and time of year when administered. It should also be noted that there is a Spanish version of the LAB. With these advantages, it is felt that the LAB could provide a better evaluative overview of English language progress made by the students participating in Project ABLE. SAT testing would continue in its present form.

Summary, Conclusion and Recommendations

Operating at three public and three nonpublic schools of District 21 during 1978-79, Project ABLE reached approximately 180 public school and 70 nonpublic school students. ABLE serviced Hebrew, Italian, Russian and Spanish speaking students and provided resource centers in Italian, Russian and Spanish. Instruction took a variety of forms both in the foreign language and in English. The project was strong in the

areas of curriculum and materials, parental involvement and staff development. Although more difficult to evaluate, the project also achieved a significant impact upon student achievement in a number of areas.

With a view toward strengthening Project ABLE in future years, the following recommendations are offered:

(1) Bilingual test and workbook supplies, especially for the upper grade levels, should be reviewed.

(2) The possibility of having bilingual family assistants at each of the participating schools should be explored.

(3) The efforts made in staff development are to be acclaimed and encouraged to continue further.

(4) All students should be pre and posttested with the LAB for project evaluation purposes.